Trends in Foodborne Illness from FoodNet, 1996-2004

Frederick J. Angulo, DVM, PhD<sup>1</sup>; John R. Dunn, DVM, PhD<sup>1</sup>; Patricia M. Griffin, MD<sup>1</sup>; Duc Vugia, MD<sup>2</sup>; James Hadler, MD, MPH<sup>3</sup>; Kirk Smith, DVM, PhD<sup>4</sup>; Paul Cieslak, MD<sup>5</sup>; Dale Morse, MD, MS<sup>6</sup>; Melanie Megginson, MPH<sup>7</sup>; Leonard C. Lindsay, MSN, MPH, RN<sup>8</sup>, Alicia Cronquist, RN, MPH<sup>9</sup>; Karla Thorton, MD, MPH<sup>10</sup>; Robert V. Tauxe, MD, MPH<sup>1</sup>, and the EIP FoodNet Working Group.

<sup>1</sup>CDC, Atlanta GA, <sup>2</sup>CA Dept of Health Services, Berkeley CA, <sup>3</sup>CT Dept of Public Health, <sup>4</sup>MN Dept of Health, Minneapolis, MN, <sup>5</sup>OR Health Division, Portland, OR, <sup>6</sup>NY Dept of Health, Albany NY, <sup>7</sup>MD Dept of Health and Mental Hygiene, Baltimore MD, <sup>8</sup>TN Dept of Health, Nashville, TN, <sup>9</sup>CO Dept of Public Health and Env, Denver, CO, <sup>10</sup>NM EIP, Albuquerque, NM

Background: In the United States, an estimated 76 million persons contract foodborne and other acute diarrheal illnesses each year. CDC's Emerging Infections Program Foodborne Diseases Active Surveillance Network (FoodNet) quantifies and monitors the incidence of these infections by conducting active surveillance for laboratory-diagnosed illness.

Method: FoodNet collects data in ten U.S. sites on diseases caused by enteric pathogens transmitted commonly through food, including *Campylobacter*, *Cryptosporidium*, *Cyclospora*, Shiga toxin - producing *Escherichia coli* O157 (STEC O157), *Listeria*, *Salmonella*, *Shigella*, *Vibrio*, and *Yersinia*.

Results: The 2004 data demonstrate declines in the incidence of infections caused by *Campylobacter* (31% decrease, 12.9 cases/100,000), STEC O157 (42% decrease, 0.9 cases/100,000), *Listeria* (40% decrease, 0.27 cases/100,000), *Salmonella* (8% decrease, 13.0 cases/100,000), and *Yersinia* (45% decrease, 0.39 cases/100,000) relative to an average baseline incidence from 1996 through 1998. Declines in *Campylobacter* and *Listeria* incidence are approaching national health objectives (12.3 and 0.25, respectively) and for the first time the incidence of STEC O157 infections in FoodNet is below the 2010 national health objective (1.0).

Conclusion: STEC O157 declines in FoodNet have occurred concurrently with food safety initiatives and with declines reported in contamination of ground beef. Further efforts are needed to sustain and extend these important declines, and to improve prevention of foodborne infections. Efforts to reduce pathogens in food animal reservoirs and to prevent contamination of produce should be enhanced.